## MTBAUGDT

**RoHS\*** 



Vishay Custom Magnetics

Deliver MOSFET / IGBT gate power and timing

please see www.vishay.com/doc?99912

· Directly drive high side MOSFETs / IGBTs on busses up

Excellent rise time, overshoot, and peak current

• For lead (Pb)-free parts, please add "-LF" to the end of the

Material categorization: for definitions of compliance

This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

### **Micro Gate Drive Transformers**

**FEATURES** 

to 200 V

characteristics

part number

Note

signals simultaneously



ABSOLUTE MAXIMUM RATINGS				
PARAMETER	CONDITIONS	LIMITS	UNITS	
Dielectric withstand voltage	Drive to gate, 1 min	1500	V <sub>DC</sub>	
	Gate to gate, 1 min	500	V <sub>DC</sub>	
Winding current	Any winding	100	mA <sub>RMS</sub>	
Total power dissipation <sup>(1)</sup>		400	mW	
Operating temperature	Continuous	-55 to +130	°C	
Storage temperature	Continuous	-55 to +155	°C	
Frequency		125 to 750	kHz	
Size (L x W x H)		8.9 x 6.6 x 5.6	mm	
Terminals	Surface-mount			

#### Note

<sup>(1)</sup> Derate at 5 mW/°C above 25 °C

#### STANDARD ELECTRICAL SPECIFICATIONS INTERWINDING DC **RESISTANCE**<sup>(3)</sup> CAPACITANCE USEFUL MAGNETIZING LEAKAGE DRIVE TRANSFER DRIVE GATE EXCITATION FREQ. INDUCTANCE INDUCTANCE PART NUMBER<sup>(1)</sup> SCHEMATIC RATIO DRIVE MIN. (µH) <sup>(3)(4)</sup> GATES то то RANGE MAX. MAX. (± 1 %)<sup>(2)</sup> MAX. MAX. GATE GATE (nH) (5) (kHz) (V x µs) MAX. MAX. **(Ω)** (Ω) (pF) (pF) MTBAUGDT125050 125 to 500 1:0.5:0.5 63 330 500 2.0 0.7 60 30 А MTBAUGDT125075 500 2.0 125 to 500 1:0.75:0.75 66 360 2.0 60 30 A MTBAUGDT125100 125 to 500 1:1:1 63 330 500 20 2.0 160 160 А MTBAUGDT250101 250 to 750 1000 0.65 1:1 25.8 350 1.0 75 n/a В MTBAUGDT250102 250 to 750 264 300 95 1:1:1 22.4 1.5 1.5 95 A 1500 В MTBAUGDT250251 250 to 750 30.6 473 1.5 0.3 25 2.5:1 n/a MTBAUGDT250252 250 to 750 2.5:1:1 23.8 300 900 1.8 0.3 27 27 А

#### Notes

<sup>(1)</sup> For lead (Pb)-free parts, please add "-LF" to the end of the part number

(2) Drive: gate or drive : gate : gate

(3)  $T_A = 25 \ ^{\circ}C$ 

 $^{\left( 4\right) }$  Small signal measurement across the drive winding with both gates open

<sup>(5)</sup> Small signal measurement a across the drive winding with both gates shorted

(6) Derate at 5 mW/°C above 25 °C

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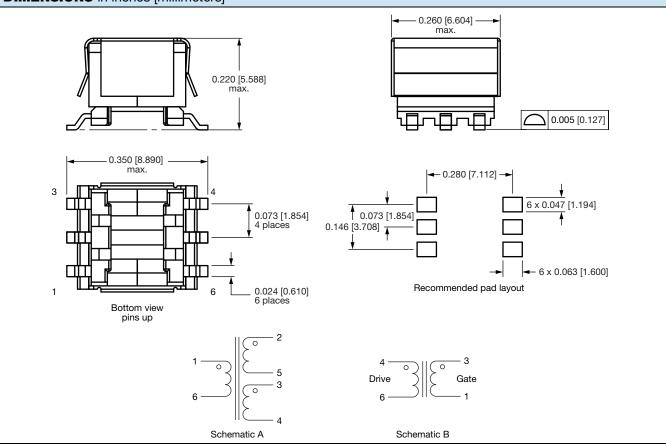


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### Vishay Custom Magnetics

### **DIMENSIONS** in inches [millimeters]



TAPE AND REEL SPECIFICATIONS				
$H \rightarrow T \qquad P_1 \rightarrow P_1 \rightarrow P_1 \rightarrow P_0 \rightarrow P_$				
PARAMETER	SYMBOL	DIMENSIONS inches [mm]		
Tape width	W	0.630 [16.0]		
Component pitch	Р	0.315 [8.0]		
Indexing pitch	P <sub>0</sub>	0.157 [4.0]		
Index-to-component offset	P <sub>1</sub>	0.079 [2.0]		
Pocket height	Н	0.213 [5.4]		
Tape thickness	Т	0.012 [0.3]		
Reel overall diameter	OD	13.0 [330]		
Reel axle diameter	AD	0.5 [13]		
Reel capacity	Qty	1000/reel		

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